PROPERTY PLANNING COMMON ELEMENTS

COMPONENTS OF MASTER PLANS

HABITATS AND THEIR MANAGEMENT

Seed Tree

Description

Seed tree is a method to bring about reproduction on what are essentially clearcut harvest areas by leaving enough trees singly or in groups to naturally seed the area with adequate stocking of desired species in a reasonable period of time before the site is captured by undesirable vegetation. In this method, only a few trees (typically 3 to 10 per acre) of the original stand are left, and this residual stocking is not sufficient to protect, modify, or shelter the site in any significant way. Seed trees may be removed after establishment or retained indefinitely.

Characteristics

- Even-aged
- Seed origin
- Overstory does not significantly modify understory conditions
- Removal of overstory after establishment of regeneration is optional
- Residual trees provide most of the seed to regenerate the site

Variations

- **Single tree:** The distribution of individual seed trees, typically 3 to 10 per acre, is fairly uniform across the stand.
- **Group seed tree:** Clusters of seed trees are left as groups or strips distributed across the stand, but not exceeding 10% of normal full stocking level.

Considerations

General considerations in the application of the seed tree method are:

- Seed tree condition (phenotype), health, and composition (form, crown class, seeding potential, age)
- Seeding characteristics of desired species – maturation, viability, dispersal, germination, good seed crop
- Desired number of seed trees
- Site capability
- Seed/seedling needs for establishment and survival
- Site preparation

- Existing and potential competition
- Overstory composition, condition, and health

Advantages

- Local seed source
- Efficiency of harvesting operations
- No preparatory harvest is necessary
- Seed source maintained in case of initial failure
- Fairly easy to treat the site to control undesirable vegetation
- Longer time period between entries reduces impacts to soils

Disadvantages

- Potential loss of residual to wind and other environmental conditions
- Application techniques are not well developed for every species
- Timing relative to good seed crop difficult
- Added time for marking seed trees
- Regeneration density may be uneven
- May involve site preparation – chemical, mechanical, or prescribed burning
- On wet sites, can potentially cause water table changes